Attachment 11

Program Preferences

East Contra Costa County
Proposition 84 Round 1 Implementation Grant Proposal

ATTACHMENT 11 –
PROGRAM PREFERENCES

This attachment discusses how this proposal addresses the program preferences outlined in Section II.F of the Integrated Regional Water Management Guidelines. In accordance with the PSP, the following pages:

- ✓ Identify the specific Program Preferences that the Proposal will meet
- ✓ Discuss the certainty that the Proposal will meet the program preferences
- ✓ Discuss the breadth and magnitude by which the Program Preference will be met.

Program Preferences Addressed by Proposal

All projects included in this Proposal achieve multiple Program Preferences. Of particular significance, there is a **HIGH DEGREE OF CERTAINTY** that the Proposal will provide ***long-term drought preparedness*** at the **LOCAL, REGIONAL, and STATEWIDE** levels, through the implementation of the East County Water Conservation Program, the East County Water Meter Installation Program, the Brentwood Non-Potable Water Supply Project, the Pittsburg Recycled Water Pipeline Rehabilitation Project, and the Phase 2 Canal Levee Elimination and Flood Protection Project. These conservation, recycling and water supply reliability projects are scheduled to begin implementation by 2012. Over the life of the Proposal, approximately 104,400 AF of supply will be conserved or offset, including 100,483 AF of Delta supply.

In addition, the Drainage Area 55 - West Antioch Creek Channel Improvements Projects will address ***critical water quality needs of disadvantaged communities (DACs).*** This Project is the City of Antioch's highest priority flood control project in the region, lending a **HIGH DEGREE OF CERTAINTY** that the project will proceed as planned, providing significant **LOCAL benefits**. The project will solve chronic flooding in a disadvantaged community, eliminating critical water quality and public health impacts to that community caused by potential exposure to water-borne diseases and other contaminants within the flood water.

The table below identifies the Program Preferences addressed by the projects included within this proposal. A more detailed discussion of the program preferences addressed by each project and the certainty, breadth and magnitude by which the Preference will be met is provided on the following pages.

Project	Regional Project	Integrates Water Mgmt	Reduces Conflict	Contributes to CALFED Objectives	Addresses WS and WQ Needs of DACs	Integrates Water and Land Use Mgmt	Addresses Statewide Priority
East County Conservation Program	✓	✓		✓			✓
East County Water Meter Installation Program	✓	✓		✓			✓
Brentwood Non-Potable Water Supply Project	✓	✓		✓			✓
Pittsburg Recycled Water Pipeline Rehabilitation	✓	✓		✓			✓
Phase 2 Contra Costa Canal Levee Elimination and Flood Protection	✓	✓		✓			✓
Drainage Area 55 - West Antioch Creek Channel Improvements	✓	✓		✓	✓		✓
Upper Sand Creek Basin	✓	✓		✓			✓
Watershed Protection and Restoration	✓	✓		✓		✓	✓
Certainty	High	High		High	High	High	High
Breadth and Magnitude	Local, Regional and Statewide	Local, Regional and Statewide		Local, Regional and Statewide	Local	Local, Regional	Local, Regional and Statewide

Task 1 - East County Water Conservation Program

Program Preferences Addressed by Project

The East County Conservation Program involves implementation of an HET rebate program, leak detection and repair program, and an E/T Controller program to reduce consumption of valuable Delta and groundwater supplies. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Reduce Water Demand through Agricultural and Urban Reuse; Increase Water Supplies for Beneficial Uses; Improve Water Quality and Improve Resource Stewardship.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Water Conservation, Water Supply Reliability, Groundwater Management and Water Quality Protection and Improvement and Economic Incentives.
- ✓ **Contributes to CALFED Objectives:** This project addresses the water supply reliability objective for the CALFED program.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Drought Preparedness, Use and Reuse Water More Efficiently, Climate Change Response Actions.

Certainty, Breadth and Magnitude of Preference Being Met

The East County Conservation Program project addresses these preferences with a **HIGH degree of certainty**. HETs, Leak detection and repairs, and E/T controllers are proven technologies. In addition, this project is not dependent upon the completion of any other project and there are no known environmental or institutional obstacles to be addressed that would prevent the project from delivering on these benefits.

Drought Preparedness/Water Supply Reliability/Conservation/Demand Reduction Benefits. Several of the program preferences noted above deal with drought preparedness, water supply reliability, water conservation, reduction in demand and increasing water supplies for beneficial uses. The various elements of this program will provide 1,138 AFY of Delta water and local groundwater savings. The savings of local groundwater supplies provides **REGIONAL benefits** and the savings of Delta water provides **STATEWIDE benefits**.

Water Quality Improvement Benefits. The Leak Detection and Repair program element provides an indirect, **LOCAL benefit** relating to water quality improvements. Repairing leaks results in a reduced chance for contaminants to enter the drinking water system.

Groundwater Management/Resource Stewardship Benefits. These conservation projects will help to reduce consumption of local groundwater supplies, thereby helping to ensure that sustainable yields are maintained. The savings of local groundwater supplies provides **REGIONAL benefits**.

Economic Incentives. Typically, new customers would be required to pay for HET installation and E/T controllers. Receipt of this grant provides **LOCAL benefits** by removing the cost barrier to existing customers and incentivizing a much larger portion of the population to take advantage of these water conservation technologies.

Climate Change Response Benefits. Using less water means less energy is needed for water transport, treatment and delivery, which in turn results in reduced greenhouse gas emissions. This provides **LOCAL, REGIONAL and STATEWIDE** benefits.

Task 2 - East County Water Meter Installation Program

Program Preferences Addressed by Project

The East County Water Meter Installation Program involves installation of water meters for a total of 216 residential and landscaping customers that are currently not metered. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Reduce Water Demand through Agricultural and Urban Reuse; Increase Water Supplies for Beneficial Uses; and Improve Resource Stewardship.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Water Conservation, Water Supply Reliability, Groundwater Management and Economic Incentives.
- ✓ **Contributes to CALFED Objectives:** This project addresses the water supply reliability objective for the CALFED program.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Drought Preparedness, Use and Reuse Water More Efficiently, Climate Change Response Actions, Ensure Equitable Distribution of Benefits.

Certainty, Breadth and Magnitude of Preference Being Met

The East County Water Meter Installation project addresses these preferences with a **HIGH degree of certainty**. It is well-documented within the industry (including the US EPA and others) that installing meters on un-metered services results in water savings as customers are billed for actual water usage rather than a flat rate. CCWD has documented 20% reduction in water use based on previous meter installations. In addition, this project is not dependent upon the completion of any other project and there are no known environmental or institutional obstacles to be addressed that would prevent the project from delivering on these benefits.

Drought Preparedness/Water Supply Reliability/Conservation/Demand Reduction Benefits. Several of the program preferences noted above deal with drought preparedness, water supply reliability, water conservation, reduction in demand and increasing water supplies for beneficial uses. The various elements of this program will provide 12,550 AF of Delta water and local groundwater savings over the life of the project. The savings of local groundwater supplies provides **REGIONAL benefits** and the savings of Delta water provides **STATEWIDE benefits**.

Groundwater Management/Resource Stewardship Benefits. DWD's residential meter installations will help to reduce consumption of local groundwater supplies, thereby helping to ensure that sustainable yields are maintained. The savings of local groundwater supplies provides **REGIONAL benefits**.

Economic Incentives. Typically, new customers would be required to pay for new meters. Receipt of this grant provides **LOCAL benefits** by removing the cost barrier to existing customers.

Climate Change Response Benefits. Using less water means less energy is needed for water transport, treatment and delivery, which in turn results in reduced greenhouse gas emissions. This provides **LOCAL, REGIONAL and STATEWIDE** benefits.

Equitable Distribution of Benefits. A portion of the water meters will be installed in Disadvantaged Communities. In addition to improving water supply reliability, this grant would provide **LOCAL benefits** by offsetting the cost of the meter and installation that would otherwise be borne by those customers.

Task 3 – Brentwood Non-Potable Water Supply Project

Program Preferences Addressed by Project

The Brentwood Non-Potable Water Supply project involves extending recycled water service to provide 88 AFY of irrigation supply to 29 acres of land. This project addresses several program preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Reduce Water Demand through Agricultural and Urban Reuse; Increase Water Supplies for Beneficial Uses; and Improve Resource Stewardship.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Water Recycling, Water Supply Reliability, Water Quality Protection and Improvement, Groundwater Management, and Matching Quality to Use.
- ✓ **Contributes to CALFED Objectives:** This project addresses the water supply reliability objective for the CALFED program.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Drought Preparedness, Use and Reuse Water More Efficiently, and Climate Change Response Actions.

Certainty, Breadth and Magnitude of Preference Being Met

The Brentwood Non-Potable Supply Project addresses these preferences with a **HIGH degree of certainty**. The benefits of recycled water as a drought proof, reliable water supply are well documented. In addition, this project is not dependent upon the completion of any other project and there are no known environmental or institutional obstacles to be addressed that would prevent the project from delivering on these benefits.

Drought Preparedness/Water Supply Reliability/Water Recycling Benefits. Several of the program preferences noted above deal with drought preparedness, water supply reliability, water recycling, and increasing water supplies for beneficial uses. This project will provide 88 AFY of Delta water and local groundwater savings by using recycled water as the irrigation source in lieu of these other supplies. The savings of local groundwater supplies provides **REGIONAL benefits** and the savings of Delta water provides **STATEWIDE benefits**.

Groundwater Management/Resource Stewardship Benefits. This recycled water project will partially offset local groundwater pumping, thereby helping to ensure that sustainable yields are maintained. The savings of local groundwater supplies provides **REGIONAL benefits**.

Climate Change Response Benefits. Recycled water is a drought tolerant supply that is less energy-intensive than most other water supply options. This provides **LOCAL, REGIONAL and STATEWIDE** benefits.

Task 4 – Pittsburg Recycled Water Pipeline Rehabilitation Project

Program Preferences Addressed by Project

The Pittsburg Recycled Water Pipeline Rehabilitation Project will allow for the continued delivery of 526 AFY of recycled water as an irrigation supply to local parks and a golf course. This project addresses several program preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Reduce Water Demand through Agricultural and Urban Reuse; Improve Operational Efficiency and Water Supply Reliability; Improve Water Quality; Increase Water Supplies for Beneficial Uses; and Improve Resource Stewardship.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Water Recycling, Water Supply Reliability, Water Quality Protection and Improvement, Conveyance, Matching Quality to Use, and Pollution Prevention.
- ✓ **Contributes to CALFED Objectives:** This project addresses the water supply reliability objective for the CALFED program.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Drought Preparedness, Use and Reuse Water More Efficiently, Climate Change Response Actions, and Protect Surface and Groundwater Quality.

Certainty, Breadth and Magnitude of Preference Being Met

The Pittsburg Recycled Water Pipeline rehabilitation project addresses these preferences with a **HIGH degree of certainty**. The project will increase the structural integrity of a pipeline thereby ensuring the delivery of recycled water supplies to irrigation customers is not interrupted. The benefits of recycled water as a drought proof, reliable water supply that reduces pollutant loading from wastewater discharges are well documented. In addition, this project is not dependent upon the completion of any other project and there are no known environmental or institutional obstacles to be addressed that would prevent the project from delivering on these benefits.

Drought Preparedness/Water Supply Reliability/Water Recycling Benefits. Several of the program preferences noted above deal with drought preparedness, water supply reliability, and increasing water supplies for beneficial uses. This project will enable the continued savings of 526 AFY of Delta water supplies and local groundwater supplies by using recycled water as the irrigation source instead. The savings of local groundwater supplies provides **REGIONAL benefits** and the savings of Delta water provides **STATEWIDE benefits**.

Pollution Prevention/Surface Water Quality Benefits. This recycled water project will reduce the amount of wastewater discharges to New York Slough, which in turn results in reduced pollutant loading to that water body and preservation of downstream beneficial uses. This results in both **LOCAL and REGIONAL** benefits.

Climate Change Response Benefits. Recycled water is a drought tolerant supply that is less energy-intensive than most other water supply options. This provides **LOCAL, REGIONAL and STATEWIDE** benefits.

Task 5 – Phase 2 Contra Costa Canal Levee Elimination and Flood Protection Project

Program Preferences Addressed by Project

The Contra Costa Canal Levee Elimination and Flood Protection Project will replace 21,000 feet of the unlined Contra Costa Canal with a pipeline to improve source water quality available to CCWD by preventing intrusion of poor quality groundwater, eliminate up to eight miles of aging canal embankments, and improve public safety by preventing access to the open water canal. Phase 2 of the full project includes replacing approximately 400 feet of the canal with a pipeline, eliminating associated canal embankments, and crossing Marsh Creek. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets the following CWC §10537 regional criteria: Increase Water Supplies for Beneficial Uses; Improve Operational Efficiency and Supply Reliability; Improve Water Quality; Improve Resource Stewardship; and Improve Flood Management.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Ecosystem Restoration; Habitat Protection and Improvement; Water Supply Reliability; Flood Management; Water Quality Protection and Improvement; Wetlands Enhancement & Creation; Conveyance – Delta and Regional/Local; System Reoperation; Surface Storage – CALFED; Surface Storage – Regional/Local; and Salt and Salinity Management.
- ✓ **Contributes to CALFED Objectives:** This project addresses the Water Quality; Water Supply Reliability; Ecosystem Restoration; and Levee System Integrity CALFED program objectives.
- ✓ **Statewide Priorities:** This project addresses the Drought Preparedness, Practice Integrated Flood Management; and Protect Surface and Groundwater Quality statewide priorities.

Certainty, Breadth and Magnitude of Preference Being Met

The Phase 2 Contra Costa Canal Levee Elimination and Flood Protection Project addresses these preferences with a **HIGH degree of certainty**. This project has completed environmental documentation, permitting, and mitigation, and Phase 2 has been completely designed. If funding is secured, the project will move forward expeditiously.

Drought Preparedness/Water Supply Reliability/Conservation/Demand Reduction Benefits. Several of the program preferences noted above deal with drought preparedness, water supply reliability, water conservation, and increasing water supplies for beneficial uses. This project will improve supply reliability by improving water quality at Rock Slough, thereby decreasing the amount of water upstream reservoirs must release to meet the Rock Slough water quality standard. CCWD will also release less water to meet delivered water quality goals. Increasing storage available both locally and statewide will provide **LOCAL, REGIONAL, and STATEWIDE benefits**.

Water Quality Improvement Benefits. Encasing the unlined canal provides a **LOCAL and REGIONAL benefit** by preventing intrusion of saline groundwater, improving delivered water quality.

Groundwater Management/Resource Stewardship Benefits. Encasing the unlined canal is a critical step for the completion of the Dutch Slough Restoration Project, a tidal wetland restoration site just to the north of the canal. CCWD also acquired wetland and habitat (burrowing owl & giant garter snake) mitigation land at Holland tract. CCWD has acquired 47 acres of wetland and 98 acres of upland habitat through the Wildlands Company. The project provides **LOCAL and REGIONAL benefits**.

Flood Protection. The Canal transports water through an area that has rapidly urbanized. Encasing the canal will eliminate the flood risk to adjacent property and lands, providing **LOCAL benefits**.

Task 6 – Drainage Area 55 - West Antioch Creek Channel Improvement Project

Program Preferences Addressed by Project

The Drainage Area 55 - West Antioch Creek Channel Improvement Project will replace an undersized concrete trapezoidal channel and arch culverts to eliminate flooding to commercial and multi-family properties adjacent to the channel and within a Disadvantaged Community Area. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Improve Water Quality; Improve Resource Stewardship; and Improve Flood Management.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Ecosystem Restoration; Habitat Protection and Improvement; Flood Management; Stormwater Capture and Management; Water Quality Protection and Improvement; NPS Pollution Control; and Pollution Prevention.
- ✓ **Contributes to CALFED Objectives:** This project addresses the Water Quality CALFED program objective.
- ✓ **Addresses Critical Water Supply/Water Quality Needs of DACs:** This project provides Water Quality benefits to a DAC.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Practice Integrated Flood Management and Protect Surface and Groundwater Quality.

Certainty, Breadth and Magnitude of Preference Being Met

The Drainage Area 55 - West Antioch Creek Channel Improvement Project addresses these preferences with a **HIGH degree of certainty**. This project is part of a long standing Flood Control District Zone Plan and is supported by both an Environmental Impact Report and an Engineer's Report. This project is focused on improving one specific channel segment of West Antioch Creek and is not reliant on any additional projects being completed. Currently, this is the City's number one priority flood control project within the region.

Water Quality Improvement Benefits. This project provides a **LOCAL, REGIONAL, and STAEWIDE benefit** to water quality by reducing/eliminating overland flooding events to surrounding commercial, industrial and residential areas, preventing surface contaminants from entering the creek and eventually the Delta.

Groundwater Management/Resource Stewardship Benefits. The project will provide **LOCAL** urban land use management benefits by reducing frequent flooding occurrences within this area, allowing for the development and improvement of local commercial, industrial, multi-family, and residential properties. Annual flooding events in this area have stymied business opportunities for decades. Regulatory requirements to offset project impacts will most likely include local and regional watershed restoration measures.

Flood Protection. Construction of new structural concrete culverts will improve stormwater conveyance in West Antioch Creek and reduce the incidence of flooding, providing **LOCAL benefits**.

DAC Benefits. This project addresses a critical water quality need of a DAC by preventing chronic flooding of the DAC adjacent to West Antioch Creek (which currently floods two to three times per year), eliminating exposure to pathogens and other contaminants found in degraded flood waters.

Task 7 – Upper Sand Creek Basin Project

Program Preferences Addressed by Project

The Upper Sand Creek Basin (USCB) Project will prevent flooding along the lower reach of Marsh Creek between Sand Creek and the Marsh Creek outfall into the Sacramento-San Joaquin River at Big Break in Oakley. The project includes creation of 5.3 acres of riparian habitat, including 0.9 acres of perennial wetlands and 4.3 acres of seasonal wetlands, which will provide valuable habitat for special status species, and are considered quality habitats for raptor, western pond turtles, burrowing owls, the California Tiger Salamander and Red Legged frog. The project provides recreation benefits by creating a 62.5 acre open space park, which has been laid out to accommodate a number of sports fields that can be used for soccer, football, and baseball/softball. The project provides water quality benefits by attenuating peak stormwater flows, thereby reducing streambed scour and erosion and reducing sedimentation. Finally, installation of trash capture devices will help protect against the degradation of surface water quality in Sand Creek, Marsh Creek and eventually the San Joaquin River and Delta. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets several of the regional criteria as defined by CWC §10537, including: Improve Water Quality; Improve Resource Stewardship; and Improve Flood Management.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Ecosystem Restoration; Habitat Protection and Improvement; Flood Management; Stormwater Capture and Management; Water Quality Protection and Improvement; NPS Pollution Control; and Pollution Prevention.
- ✓ **Contributes to CALFED Objectives:** This project addresses the following CALFED program objectives: Water Quality, Ecosystem Restoration, and Levee System Integrity.
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Practice Integrated Flood Management and Protect Surface and Groundwater Quality.

Certainty, Breadth and Magnitude of Preference Being Met

The Upper Sand Creek Basin Project addresses these preferences with a **HIGH degree of certainty**. Planning and environmental documentation for the project are already complete, and the project is nearing the end of the design phase. The project is a high priority at a regional level, as it will attenuate peak flows from Sand Creek into Marsh Creek for a 100-year storm event.

Water Quality Improvement Benefits. This project provides a **LOCAL, REGIONAL, and STAEWIDE benefit** to water quality by reducing /eliminating overland flooding events to surrounding areas, preventing surface contaminants from entering the Delta.

Groundwater Management/Resource Stewardship Benefits. The proposed USCB will replace a highly degraded, overgrazed, and incised creek with more natural wetland and riparian system planted with native plants and trees. This restoration will provide habitat for native species and will filter stormwater runoff from urban areas upstream, providing **LOCAL and REGIONAL benefits**.

Flood Protection. By limiting peak flows, USCB will reduce water levels in Marsh Creek and on the levees that protect local communities downstream. USCB will reduce the likelihood that the levees along Marsh Creek will be overtopped by a large flood event, providing **LOCAL and REGIONAL benefits**.

Task 8 – Watershed Protection and Restoration Project

Program Preferences Addressed by Project

The Watershed Protection and Restoration Project is part of the Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) and involves acquiring and restoring habitat for endangered and listed species in eastern Contra Costa County. This is part of a regional program to permanently protect and manage a 30,000 acre preserve system for ecosystem integrity, species and recreation. This project meets the following Program Preferences:

- ✓ **Regional Project**: This project meets the Improve Resource Stewardship regional criterion as defined by CWC §10537.
- ✓ **Integrates Water Management:** This project integrates several water management strategies including: Ecosystem Restoration; Habitat Protection and Improvement; Recreation and Public Access; Water Quality Protection and Improvement; Wetlands Enhancement and Creation; Watershed Planning; and Agricultural Lands Stewardship.
- ✓ **Contributes to CALFED Objectives:** This project addresses the following CALFED program objectives: Water Supply Reliability and Ecosystem Restoration.
- ✓ **Integrates Water and Land Use Management**
- ✓ **Statewide Priorities:** This project addresses several statewide priorities, including: Climate Change Response Actions; Expand Environmental Stewardship; and Ensure Equitable Distribution of Benefits.

Certainty, Breadth and Magnitude of Preference Being Met

The Watershed Protection and Restoration project addresses these preferences with a **HIGH degree of certainty**. The Conservancy has a track record of aggressively perusing acquisition and restoration opportunities. This is part of a regional program to permanently protect and manage a 30,000 acre preserve system for ecosystem integrity, species and recreation.

Drought Preparedness/Water Supply Reliability/Conservation/Demand Reduction Benefits. The successful implementation of the HCP/NCCP is linked to the CCWD's water supply. Wildlife agencies required that a HCP/NCCP be adopted and implemented in the region for CCWD to draw its full allotment of water from the Delta. CCWD provides treated and raw water to most of the East County region. As a result, this project provides **LOCAL, REGIONAL, and STATEWIDE benefits**.

Groundwater Management/Resource Stewardship Benefits. While this project is local, conservation in this region provides **LOCAL, REGIONAL and STATEWIDE benefits**. Connecting existing open space preserve and restoration areas for endangered and listed species is critical in this region. This area is unique in that it is home to the northern-most extent of some species (San Joaquin kit fox) and core habitat for others (CA red legged frog and CA tiger salamander), and benefits are far-reaching.

Integration of Water and Land Use/Recreation Benefits. This project provides **LOCAL and REGIONAL benefits**. The process of developing the HCP/NCCP was to document the anticipated growth in the east county area, plan for the growth, mitigate AND contribute to the recovery of listed species by preserving, protecting and restoring habitat beyond traditional mitigation requirements. In addition, recreation plans are developed for all preserve lands. Though lands may not be immediately open to the public, the Conservancy works with local volunteer groups to do plant surveys and assist with restoration projects.